Total quality management: The need for an employee centred coherent approach

Hoogervorst, J.A.P.; Koopman, P.L.; van der Flier, H.

published in
The TQM Magazine
2005

DOI (link to publisher)
10.1108/09544780510573084

document version
Publisher's PDF, also known as Version of record

PERSPECTIVES

Total quality management

The need for an employee-centred, coherent approach

J.A.P. Hoogervorst
KLM Royal Dutch Airlines, Schiphol, The Netherlands, and
P.L. Koopman and H. van der Flier
Amsterdam Free University, Amsterdam, The Netherlands

Abstract

Purpose – The core principles of total quality management (TQM) are considered to be incompatible with the traditional mechanistic way of organizing. It is believed that this constitutes a major reason for failed TQM programs: attempting to introduce its principles with the traditional mindset. Additionally, initiatives to change behaviour often fail due to the fact that no concurrent attention is given to the coherence and consistency of those macro-organizational variables determining behaviour. These two primary reasons for TQM failures are the subject of this discussion.

Design/methodology/approach – From the perspective of TQM, the importance of a human-centred approach to organizing is argued. The human-centred approach to organizing fundamentally offers the possibility of aligning human interests with organizational interests. Rather than depersonalisation of work, with the possible danger of alienation, work offers possibilities for self-realization and self-development. This is considered to be the most fundamental contribution of TQM. It is thus argued that TQM in its ideal fundamental concept differs from the traditional mechanistic principles by offering genuine possibilities for employee development and self-realization.

Findings – It is argued that TQM entails a human-centred approach to organizing which is fundamentally incompatible with traditional mechanistic thinking. Further, the needed focus on employee behaviour requires attention to organizational culture, management practices, and organizational structures and systems, seen as macro variables determining behaviour. Absence of coherence and consistency among these variables when attempting to change behaviour has been argued to be another major source of TQM failures.

Originality/value – Establishing coherence and consistency among the three elements of the behavioural context should thus be a central focus area.

Keywords Work organization, Employee involvement, Total quality management

Paper type Conceptual paper

Introduction: the quality approach

Development of the quality approach

Quality can be defined as "the degree to which the product in use will meet the expectations of the customer" (Feigenbaum, 1961), or simply defined as "conformance to requirements" (Crosby, 1979). Initially, starting with the work of Deming and Juran, primary attention in quality control (QC) was given to production processes, delivering the end-product quality as experienced by the external customer. When thinking about quality progressed, awareness emerged that all organizational activities need to be integrated and coordinated. Quality was seen as the result of a careful interplay of various organizational processes, as expressed by the concept of total quality control.

The TQM Magazine
Vol. 17 No. 1, 2005
pp. 92-106

0954-478X
DOI 10.1108/09544780510573084

From the start QC and TQC had a strong operational and analytical emphasis and was considered to be "a body of technical analytical and managerial knowledge" (Feigenbaum, 1961, p. VII). However, the importance of employee participation and a quality mindset was already recognized by observing that TQC requires an adequate successful climate in which people take pride. These aspects were nonetheless only briefly addressed and a quality system was still being defined as "a network of administration and technical procedures required to produce and deliver a product of specified quality standards" (Feigenbaum, 1961, p. 108). Special attention was given to statistical methods. Although evidently important, essential areas for quality improvement were not being addressed when only applying statistical quality control. Deming (1986) estimates that only 3 per cent of possible benefits stem from statistical quality control, while 97 per cent has to do with changing other organizational aspects, including company wide systems. This widened the scope of quality related issues outside the core production processes themselves. The required corporate-wide focus is expressed by the concept of total quality management. Ultimately, the TQM philosophy rests on three principles identified as, customer focus, continuous improvement, and employee involvement (Dean and Bowen, 1994).

TQM failures abound

Various writers have argued the positive impact of TQM on employee performance and satisfaction, quality performance, customer satisfaction, operating and business results (Belohlav, 1993; Oakland and Porter, 1994; Voss and Blackmon, 1995). Despite the impressive results reported, widespread application of TQM principles is however not apparent. Various surveys indicate that many CEO's support the concept of TQM, yet very few did apply the principles, or soon discontinued the effort (Peters, 1989; Brennan, 1992). We feel two major reasons are responsible for limited success. First, as we will argue below, TQM rests on crucial contributions of employees, which is incompatible with the traditional, mechanistic view on organizing. This creates a fundamental mismatch between TQM intentions and the dominant logic the organization is using. The second reason for failures regards inconsistency and incoherence of the organizational context determining employee behaviour. Three macro organizational aspects determine this context: the organizational culture, the management practices, and the organizational structures and systems. Numerous examples of failures to implement quality improvement efforts pointed towards the behavioural context (Chang *et al.*, 1993; Zairi, 1994). For example, quality problems in production could be the result of a lack of teamwork, which in turn might result from a highly individual focus of reward systems. Improvement teams might fail if the existing culture suppresses open discussion about failures, or management practices frustrate improvements, because of the considered decision making prerogative. In these cases, quality improvement teams or efforts, lack "contextual legitimacy" (Pearson, 1992). Hence, after discussing the mechanistic versus the human-centred view on organizing, we will discuss the behavioural context determining employee behaviour.

The mechanistic versus human-centred view

Traditional, mechanistic view

Not so long ago, a large industrial organization received a new group of employees with the message that they were acquired the same way the organization requested

sandpaper, and that they would be put back on the street whenever they were not needed anymore (in Adler, 1993). This is a clear expression of how employees are viewed. All too often, the approach to people reveals the traditional view on the utilization of human capacities: used in an instrumental sense for management-defined tasks. Human labour in this view is required insofar their tasks cannot be transferred to machines (Fromm, 1990). Four theorists largely dominated the initial thinking about organizing: Frederick Taylor, Henri Fayol, Max Weber and Chester Barnard. Taylor (1912, cited in Pugh, 1990) advocated the "scientific" approach for the arrangement of work, through emphasizing economic rationality by work analysis, combined with standardization via routine, repetitive tasks. Congruent with this approach were the management practices formulated by Fayol (1916, cited in Pugh, 1990), regarding authority, lines of command, unity of control, and forms of coordination and planning. Around the same time Max Weber (1924, cited in Pugh, 1990) formulated views on bureaucracy to foster rationality and effectiveness in organizing. Later, Chester Barnard (1938) further emphasized the importance of management, by analysing tasks and functions of "executives". In his view, the organizational system should be broken down into a hierarchical structure of subordinated subsystems, with management positions as linking pins for passing down employee orders and tasks. The assessment of organizational effectiveness and efficiency are specialized tasks reserved for management, because of "superiority in knowledge, skills and imagination". Decision-making is therefore considered the prerogative of management, since as Barnard notes, "they represent a specialization of the process of making organizational decisions – and this is the essence of their functions" (Barnard, 1938, p. 189).

Such a pure instrumental approach eliminates employees as a source for knowledge, ideas and meaningful contributions. Rather, employees are seen as a threat to an efficient production process. Organizational performance is thus considered to be higher the more employees behave according to formal structures, rules and tasks. Organizations operating in this "mechanistic" manner are characterized as machine bureaucracies (Morgan, 1986; Mintzberg, 1989).

Human-centred view

Diametrically opposite the mechanistic approach is the employee-centric vision. This vision goes deeper than the attention for social aspects in organizations as advocated by the human resources movement (McGregor, 1960; Likert, 1965). In addition to believing that employees are willing to work in a committed and motivated manner, the employee-centric vision is based on the conviction that employees are the crucial core for organizational success. Drucker (1985) therefore advocates a shift in management attention, since in his view, aspects of employee behaviour should be the primary areas of management focus. Adequate behaviour of employees is seen as the essential source for competitive advantage (Cooke, 1992; Pfeffer, 1994). A study of the Conference Board Europe among 166 organizations, identified employees as the only permanent source for competitive advantage (Csoka, 1994). Not the possession of patents, a unique technology, or the execution of a brilliant strategy determined the essence of competitive advantage, but the characteristics of human resource management (Pfeffer, 1994; Collins and Porras, 1994). All too often however, the capabilities of human resources are barely used. According to Prahalad (1995), human resources form the largest unused source for knowledge and skills in organizations.

After illustrating the tenacity and limitations of mechanistic thinking, the importance of the human-centric view will be argued with respect to employee involvement for securing and improving organizational performance.

The tenacity and limitations of the mechanistic mindset

A human-centred approach is less common than might be expected. Doz and Thanheiser (1993 p. 296) observe that:

> . . .despite "modernization" of corporate structures and systems, the mindset of managers appears to have remained remarkably similar to the Taylorist model developed at the beginning of the century.

In other words, the mechanistic view on organizing appears persistent. Reorganizing often merely implies restructuring. It might be argued that the tenacity of the mechanistic model relates to deep-seated characteristics of Western thought that ultimately developed into an impressive mechanistic cosmological worldview (Dijksterhuis, 1986). Successes of the mechanistic viewpoint resulted in an almost unquestionable paradigm.

Not surprisingly, this thinking considerably influenced the perspective on the functioning of social "systems". According to the structural-functionalism thesis, social systems are understood through their structure and the causal relationships between its elements (Hassard, 1993). As illustrated in the above, these views have also invaded organizational thinking successfully: the organization seen as a machine, formalized to establish (assumed) causal relationships, with employees acting as "parts". Culminating in the notion of "strategic planning", also the unknowable future was considered to be to some extent under intentional human control through a planned, analytical and assumed deterministic process.

Numerous writers have argued the limits of the mechanistic view. Under the labels "complexity theory", "chaos theory", and "non-linear dynamics", new insights emerged about the character of complex systems (Gleick, 1988; Stacey, 1992). These insights are relevant also from an organizational perspective, since organizations are very complex systems imbued with ambiguity, uncertainty and unpredictability. We will argue below that employees are crucial for securing and improving organizational excellence under these conditions, as is the primary objective of TQM.

Employee involvement

Essential in the total quality approach is the strong focus on employee involvement. Unlike the traditional mechanistic approach, employee knowledge and contributions are viewed as a prerequisite. Examples of total quality performance demonstrate the importance of employee involvement, since "the only point at which true responsibility for quality can lie is with the person or group actually doing the job" (Oakland and Porter, 1994). According to Juran (1991), quality award winners "used employee involvement to an unprecedented degree". As such, possibilities for employee development are also created. Hence, TQM rests on employee involvement but conversely also improves the quality of employee working life (Guimaraes, 1996). Research about impact of TQM programs shows that success not so much depends on aspects of technical rationality, such as improved measurement or policies, but more crucially depends on conditions related to employee behaviour, culture and leadership (Powell, 1995).

Seeing employees as a source of meaningful contributions implies an approach fundamentally different from the traditional separation of thinking and doing. Therefore, as we have mentioned before, the TQM philosophy is considered to be incompatible with the traditional management theory and practice (Grant *et al.*, 1994; Amsden *et al.*, 1996). Quality improvement is thus seen as a social and cultural change in organizations, from mechanistic and rigid, into organic and learning. Under these conditions employees should obtain a "feeling of accomplishment, achievement and personal satisfaction" (Crosby, 1979). As such, a quality orientation has far reaching implications for the management of labour.

The argued necessity of employee involvement subsequently entails a focus on employee behaviour. This focus is additionally stressed by recalling the uncertainty, ambiguity and unpredictability associated with the complexity of organizations mentioned earlier. This complexity can only be successfully addressed through employee involvement in order to secure organizational excellence under "chaotic" conditions. Unlike the mechanistic metaphor suggests, Katz and Kahn (1978) observed that:

> . . .it is impossible to prescribe role requirements precisely and completely or lay down rules with sufficient specificity to cover all contingencies arising in a single week of work of a complex organization.

Likewise, Mintzberg (1989) stated that "no organization can be so well run, so organized, that is has considered every contingency in advance". Noticeably, one survey reported that management knew only 4 per cent of the problems encountered by factory workers (Whiteley, 1992). Without employee involvement, the majority of problems would not receive adequate attention.

We feel employee involvement is meaningless without some form of employee self-control and self-organizing capabilities. TQM and self-control are not necessarily mutually exclusive concepts. The issue seems not so much to be the standardization and the reduction of process variability as such, but rather the level of employee self-control pertinent to these aspects (Adler, 1993). Evidently, the level of self-control determines the possibilities for employee self-development and self-realization. The importance of employee involvement and the viability of self-control are convincingly reported by various studies (Adler, 1993; Leonard-Barton, 1992). It is important to note that if everything would be totally predictable employees might indeed be merely parts in the organizational machine. However, uncertainty, unpredictability and "chaotic" conditions also define the reality of organizational life. Local freedom and autonomy are essential to create order. It is here that possibilities for alignment of employee and organizational interest exist. Put differently, the "bandwidth" of organizational uncertainty offers possibilities for employee self-development. Under the label "mutuality" the situation is identified whereby personal and organizational goals are not necessarily mutually exclusive (Armstrong, 1992). Precisely at the level of self-control conditions for mutuality and self-development can be created (Handy, 1995). Clearly, empowerment and employee self-determination require a different mindset that, among other things, shows genuine trust in people. Ultimately, this will lead to trust of people. This refers to the issue of leadership discussed below. Table I presents some differences between the two views on organizing.

In summary, because TQM rests on the relentless pursuit of organizational excellence, the mechanistic approach breaks down since it ignores employees as a crucial source for organizational success. As indicated earlier, we believe this constitutes a major reason for TQM failures. Nonetheless, when the limitations of the mechanistic approach are recognized, the second important primary reason for failure results from the inconsistent and incoherent approach to changing those organizational variables that determine employee behaviour. Hence, a focus on those variables, or determinants of employee behaviour is important.

Determinants of employee behavior

The human-centred approach to organizing will be reflected in the organizational culture, the management practices and the organizational structure and systems. These organizational macro variables are considered to be the employee behavioural determinants, and as such considered key success factors with respect to TQM initiatives. We will briefly discuss the three behavioural determinants in order to illustrate their influence on employee behaviour. Subsequently we will argue their mutual relationship to support the position that behavioural change can only be sustained under consistency and coherence regarding the variables determining behaviour. Behavioural determinants constitute the behavioural context. The argued focus on this context concurs with the observation of Ghoshal and Bartlett (1997) stating that "the power of the behaviour context lies in its impact on the behaviour of individual organizational members".

Organisational culture

Broad attention for organisational culture was driven by a crisis that was felt in the 1980s about organizational performance (Dahler-Larsen, 1994). Many studies argued a relationship between cultural aspects and organizational performance (Denison, 1990; Kotter and Heskett, 1992; Gordon and DiTomaso, 1992). Two views on culture can be mentioned.

Some writers voice a descriptive approach to culture, showing more attention for manifestations of culture, and address culture on the level of form (Trice and Beyer, 1984). Culture is thus seen as something the organization is (Morgan, 1986; Meyerson and Martin, 1994). Other authors argue a normative view on culture (Schein, 1985; Hofstede, 1991). Culture is then viewed as something the organization has. From this perspective, culture refers to basic values and beliefs that serve as guidance for behaviour. As such, culture is seen as the product of group members experiences and is considered a group characteristic (Rousseau, 1990). Hofstede (1991) speaks of the "collective programming of the mind" which is learned and derived from one's social environment. Further, culture is considered a relatively stable phenomenon that is

	Mechanistic	Human-centered
Organizational governance	Management, control	Leadership, vision
Environmental perspective	Stable, orderly	Dynamic, chaotic, uncertain
Employees	Costs, labor, instrument	Asset, knowledge, creativity source
Human resource management	Transaction-oriented	Commitment-oriented

Table I.
Two views on organizing

preserved even if group members change. Organizations therefore have a "cognitive" system and memory, since as Weick (1994 p. 72) observes, "individuals may come and go, but organizations preserve knowledge, behaviours, mental maps, norms and values over time". Culture operates as a "social control system" (O'Reilly, 1989) providing behavioural guidance. In other words, culture communicates how things ought to be, and defines the "unwritten rules of the game" (Scott-Morgan, 1994). Organizational culture can thus either support or frustrate organizational goals.

Various authors indicate that next to the learning process through social interaction, also (top) management activities offer important impulses for initiating culture change (Deal and Kennedy, 1982; Peters and Waterman, 1982). This points to the symbolic aspect of management that influences beliefs and values of employees (Bolman and Deal, 1994). Schein (1985) considers the creation and management of culture the only thing of real importance to leaders. Seeing culture as behavioural guidance, cultural characteristics should be, or become such, that desired behaviour is developed and maintained. In view of TQM, this regards for example values about performance excellence, taking initiative for improvements, as well as regards values about people orientation. Fundamentally, culture can act as an aggregated form of behavioural regulation, and can replace some of the traditional mechanistic structures of control (Koopman, 1991).

Behaviour regulation is an important aspect of culture. This importance is of considerable significance in view of the continuously present unpredictability and uncertainty that is connected to complexity. As indicated before, much of the organizational context and reality is unpredictable, ambiguous and chaotic. Organizations can be described as "chaotic", complex systems (Stacey, 1992; Vinten, 1992). Such systems might nonetheless have a principle or condition that allows them to develop an orderly pattern over time. Hence, "fluctuations, randomness, and unpredictability at a local level, in the presence of guiding or self-referential principles cohere over time into definite and predictable form" (Wheatley, 1994, p. 133). In organizations, these principles or conditions giving order can be identified as the normative and value pattern of culture. Despite the complex ranges of roles, tasks, and contextual variance, when observed over time, "there is consistency and predictability to the quality of behaviour". How one should act for example in a specific service encounter is uncertain and unpredictable. However, the value pattern about quality guides the required behaviour into an orderly and predictable fashion. In this sense, culture implicitly communicates what is considered important, and acts as a source for uncertainty reduction (Deal and Kennedy, 1982). Table II summarizes the differences between the traditional, more structure oriented approach to organizing, and the more culturally oriented approach.

Table II.
Differences between the structural and cultural vision

	Structural vision	Cultural vision
Organizational perspective	Reductionistic	Holistic
Control	Formalistic, rule-oriented	(also) Value-oriented
Value pattern	Irrelevant	Behavioral guidance, giving meaning
Management	Maintenance, control	Managing culture

Management practices

Traditionally management is concerned with (personnel) planning, budgeting, and the creation of formal structures that define the machine-like rules of the organizational "system" (Kotter, 1988; Mintzberg, 1989). Fundamentally different perspectives are obtained when management is analysed from the viewpoint of leadership. We will argue that the human-centred approach to organizing entails management practices based on leadership.

Two important forms of leadership can be identified: transactional and transformational leadership (Burns, 1979). In case of transactional leadership, the interaction between leader and followers is based on the exchange of valued things, as described by the economic transaction theory. No shared goal is required, while the mutual stimulation is limited, simple and restricted by the elements of transaction, such as monetary reward in exchange of labour. In many cases, the relation between management and employees is purely transactional: a contract that stipulates mutual obligations.

Although the term leadership is used in the transactional sense, we will reserve this label for its transformational meaning. In this case, a more complex, deeper and mutually stimulating relation with followers exists, which is directed to a common goal (Burns, 1979). This relation concerns and affects the motivation of followers, based on mutual needs, expectations and values. An important element of leadership therefore concerns moral aspects that shape and give meaning to the relation with followers, since the relationship is based on more than merely transactional elements. Recalling the necessity of employee self-control, equally important is stimulating self-confidence and self-efficacy of followers, which in turn leads to self-actualisation. This stimulation rests on trust and integrity. As Bennis (1989) notes "leadership without mutual trust is a contradiction". Appreciably, trust is important under the continuous presence of uncertainty and unpredictability. These conditions were mentioned in relation to the organizational context. According to Zaleznik (1992), the crucial difference between leaders and managers has to do with the conceptions they have about order and chaos. Leaders tolerate and can deal with the absence of structure and the presence of uncertainty and unpredictability (Bennis, 1989; Zaleznik, 1992). Empathy, seen as the capacity to identify oneself with the situation, feelings and motives of others, is considered essential for the possibility to create trust, and the ability to motivate people even under uncertain conditions (Burns, 1979; Bennis, 1989; Zaleznik, 1992). According to Yukl (2002), empathy has consistently shown to be important for managerial effectiveness. Table III resumes some differences between leadership and management.

	Management	Leadership
Assumed context	Stable, orderly	Dynamic, chaotic, uncertain
Primary focus	Control, routinizing	Vision, direction, values
Relation with employees	Transactional	Transformational
Primary element in relation	Money	Shared values, goals, trust
Communication	Top-down	Two-way
Style	Authoritative	Coach, guiding

Table III.
Differences between management and leadership

Leadership at all levels. Leadership in the sense expressed in the above is not only relevant for upper hierarchical functions, but also relevant for every level in the organization. Indeed, every level requires a stimulating relationship with employees, and a translation of organizational goals into local goals and aspirations. Precisely these aspects are often lacking at all organizational levels (Tichy and Ulrich, 1989). As Kotter (1988) observes, leadership at middle and lower levels might be less formidable, but is certainly not less important or fundamentally different. This leadership with a "small L" is therefore of "incredible importance". Doz and Thanheiser (1993) have commented similarly, and stress the importance of transformational leadership at every level in the organization.

Since leadership entails a fundamentally different relationship with followers than management with subordinates, the concept of leadership appears to be meaningless within the instrumental and mechanistic perspective, which principally excludes the possibility of leadership. Further, although the human-centred approach manifests itself differently in different situations, the approach itself is considered not situationally dependent, but rather based on an organizational philosophy that considers employees crucial for organizational success. In view of the discussion, it is emphasized that this choice implies a shift from management towards leadership, since involvement, participation and commitment requires more than just a transactional relationship, but a relationship based on shared goals, values and aspirations. Clearly, this relationship enables the development of "mutuality", whereby personal and organizational goals coincide. This shift towards leadership additionally implies a direction and focus towards the social aspects of organizing (Drucker, 1985; Tsoukas, 1994). Not surprisingly, formal TQM programs consider leadership as an important area of attention. TQM is not a "tool" but a customer-driven organizational philosophy with associated values and goals, aimed at operational excellence that permeates all aspects of the organization including significant change. Without leadership at every level in the organization said permeation and change is unlikely to occur.

Organizational structures and systems

Organizational structures and systems are the core elements of traditional thinking about organizations. Various structures and systems can be identified, such as a communication structure, an appraisal and reward system, a hierarchical structure, the work and task structure, an accounting system, or a management information system, to name but a few. In the true mechanistic sense, structures and systems are regulating mechanisms. They form the formal system of control that embodies knowledge and principles for governance, and represent the embedded system of management in an organization. Structures and systems should therefore match with the organizational mission, vision, values and goals. In that case, structures and systems become, in the words of Selznick, the "institutional embodiment of purpose" (in Burns, 1979). As a consequence, various structures and systems should be mutually consistent, legible and coherent (Hosking and Morley, 1991).

Mismatches: insufficient coherence. The requirement for internal consistency seems trivial. However, reality shows that this requirement is often violated with unfortunate consequences. Structures and systems are developed independently, leading to mismatches with the intentions of other structure or systems, or even with the organizational intentions as a whole. All too often, mismatches will become manifest in

the future or in another part of the organization (Senge, 1990). For example, specific performance related rewards might lead to a strong narrow task or departmental focus, whereby the total organizational process is frustrated and the end-quality degraded. The acquisition of unworkable orders because payment is contingent on sales volume, is a well-known example. Deming (1986) labelled these reward structures as a "deadly disease". Similarly, cross-functional TQM initiated process improvements might fail due to departmentally oriented accounting and management information structures, while reward structures focused on individuals might frustrate teamwork. Likewise, achieving quality improvements seems difficult if only productivity is measured. Finally, the needed long-term horizon of the TQM philosophy might be untenable due to the short-term financial reporting structures. Various authors have mentioned this mismatch as impedance for building necessary competences in organizations (Deming, 1986; Prahalad and Hamel, 1990). In all these examples, structures and systems manifest an inconsistent and incoherent part of the behavioural context.

Patterns of dynamic interrelationships. The examples given in the above show a basic pattern: the internal dynamics of one system or structure lead to undesired consequences that are manifest in other areas. Frequently, one might speak of "goal replacement", whereby sub-goals are replacing the original goals, and means become goals in themselves (Kerr, 1989).

As indicated earlier, the pattern of dynamic interrelation leads to the situation that effects will become manifest elsewhere. Conversely, this implies that problems that become manifest within a certain structure or system do not necessarily have to be rectified within that same domain. This points to "double-loop" learning that, other than "single-loop" learning, is not directly focused on symptoms, but on underlying patterns causing the symptoms (Argyris and Schön, 1978). For example, lack of teamwork might not be solved through additional behavioural training, but could be resolved through modifying the individual focus of the reward structure.

Understanding the dynamic interrelation is a fundamental condition for organizational learning (Senge, 1990). This capacity enables continuous self-diagnosis of the organization, and enables subsequent change. Both the capacity to learn and the understanding of the dynamic interrelation are therefore primary conditions for organizational change. These conditions create "double-loop" learning as mentioned earlier. Prahalad and Hamel (1990) identified this type of learning as an organizational core competence.

Unfortunately, conditions for double-loop learning are not easily established, since structures and systems themselves represent the management language through which problems are defined and addressed, whereas more fundamentally, this language of communication might be an important real origin of problems. As Senge (1990) remarks, management language is often designed for simple static problems, and appears to be ill-suited for multiple, dynamic, interrelated and interdependent cause and effect relationships. Put differently, "there is a fundamental mismatch between the nature of reality in complex systems and our predominant ways of thinking about that reality" (Senge, 1990, p. 69).

As might be appreciated, structures and systems represent an important embedded power in organizations, keeping organizational members captive in the associated referential framework. In this sense, structures and systems contribute to incorrect

decision making and frustrate the realization of organizational goals, such as establishing TQM.

The alignment of elements of the behavioural context

In the case of structures and systems, the danger of mismatches has been illustrated. Evidently, the requirement for alignment similarly holds for organizational culture, management practices, and structures and systems mutually. They should be mutually supportive, in order not to impede change (Hoogervorst, 1998). Inconsistency might easily lead to low commitment or even cynicism about organizational intentions. In line with the examples given in the above, multiple examples can additionally be given. It is not to be expected that quality teams will be successful if the existing culture suppresses an open discussion about failures, or when management frustrates improvement suggestions because of their perceived prerogative of decision making. Similarly, an information system for sharing knowledge seems of little value in a culture reflecting an individualistic and competitive working environment.

The introduction of TQM unavoidably implies change. Specifically with respect to change programs, consistency seems crucial. The notion of alignment and matched conditions is no novelty, and has been addressed by various authors in a more or less comparable manner. Peters and Waterman (1982) use the 7S-model and stress the importance of coherence between strategy, structure, skills, systems, style, shared values and staff. Miles and Snow (1984) speak about the strategic fit between management processes and the organizational structure. The MIT framework for organizational change shows a comparable picture. Next to technology, also structure, management processes, individuals and roles are identified as areas of mutual influence that should be aligned (Scott Morton, 1991). With respect to reengineering, Hammer and Champy (1993) similarly identify jobs and structures, management and measuring systems, and values and beliefs, as important mutually related aspects. According to Pettigrew (1998), research clearly shows the relationship between segmentation and incoherence on one hand, and organizational inertia on the other hand, while conversely, the capacity to change relates to organizational integration and coherence. Lawrence and Lorsch (1969) speak about the importance of internal "organizational fit".

Numerous examples of failed change programs demonstrate the importance of coherence (Beer *et al.*, 1990; Kaufman, 1992; Clement, 1994; Kotter, 1995). Specifically regarding TQM change initiatives, similar observations have been made (Lund and Thomsen, 1994; Numerof and Abrams, 1994; Zairi, 1994). Failures showed singular activities being initiated without alignment with other factors determining employee behaviour. For example, attempting to change culture through training and communication, while existing management practices and structures and systems remain unchanged (Burack, 1991). Ultimately, a renewal process can therefore only be successful under conditions of consistency and continuity of concepts (Doz and Thanheiser, 1993). Understanding the importance of alignment is key for executing TQM programs successfully. Establishing coherence and consistency among the three elements of the behavioural context should thus be a central focus area.

Conclusion

It has been argued that TQM entails a human-centred approach to organizing which is fundamentally incompatible with traditional mechanistic thinking. In itself this incompatibility is believed to constitute a major source of TQM failures. Further, the needed focus on employee behaviour requires attention to organizational culture, management practices, and organizational structures and systems, seen as macro variables determining behaviour. Those variables need to be aligned. Absence of coherence and consistency among these variables when attempting to change behaviour has been argued as another major source of TQM failures.

References

Adler, P.S. (1993), "Time and motion regained", *Harvard Business Review*, Vol. 71 No. 1, pp. 97-108.

Amsden, R.T., Ferratt, T.W. and Amsden, D.M. (1996), "TQM: the core paradigm changes", *Business Horizons*, Vol. 39 No. 6, pp. 6-14.

Argyris, C. and Schön, D. (1978), *Organizational Learning*, Addison-Wesley, Reading, MA.

Armstrong, M. (1992), *Strategies for Human Resource Management*, Kogan Page, London.

Barnard, C. (1938), *The Functions of the Executive*, Harvard University Press, Cambridge.

Beer, M., Eisenbach, R.A. and Spector, B. (1990), "Why change programs don't produce change", *Harvard Business Review*, November/December, pp. 158-66.

Belohlav, J.A. (1993), "Quality, strategy and competitiveness", *California Management Review*, Vol. 35 No. 3, pp. 55-67.

Bennis, W.G. (1989), *On Becoming a Leader*, Addison-Wesley, Reading, MA.

Bolman, L.G. and Deal, T.E. (1994), "The organization as theater", in Tsoukas, H. (Ed.), *New Thinking in Organizational Behavior*, Butterworth-Heinemann, Oxford.

Brennan, M. (1992), "Mismanagement and quality circles: how middle managers influence direct participation", *Management Decision*, Vol. 30 No. 6, pp. 35-45.

Burack, E.H. (1991), "Changing the company culture – the role of human resource development", *Long Range Planning*, Vol. 24 No. 1, pp. 88-95.

Burns, J.M. (1979), *Leadership*, Harper, New York, NY.

Chang, Y.S., Labovitz, G. and Rosansky, V. (1993), *Making Quality Work*, HarperBusiness, New York, NY.

Clement, W. (1994), "Culture, leadership and power: the keys to organizational change", *Business Horizons*, Vol. 33 No. 1, pp. 33-9.

Collins, J.C. and Porras, J.I. (1994), *Build to Last. Successful Habits of Visionary Companies*, HarperBusiness, New York, NY.

Cooke, R. (1992), "Human resource strategies for business success", in Armstrong, M. (Ed.), *Strategies for Human Resource Management*, Kogan Page, London.

Crosby, P.B. (1979), *Quality Is Free*, McGraw-Hill, New York, NY.

Csoka, L. (1994), *Closing the Human Performance Gap*, Report No. 1065-94-RR, The Conference Board Europe, New York, NY.

Dahler-Larsen, P. (1994), "Corporate culture and morality: Durkheim-inspired reflections on the limits of corporate culture", *Journal of Management Studies*, Vol. 31 No. 1, pp. 1-18.

Deal, T.E. and Kennedy, A.A. (1982), *Corporate Cultures*, Addison-Wesley, Reading, MA.

Dean, J.W. and Bowen, D.E. (1994), "Management theory and total quality: improving research and practice through theory development", *Academy of Management Review*, Vol. 19 No. 3, pp. 392-418.

Deming, W.E. (1986), *Out of the Crisis*, Cambridge University Press, Cambridge.

Denison, D.R. (1990), *Corporate Culture and Organizational Effectiveness*, Wiley, New York, NY.

Dijksterhuis, E.J. (1986), *The Mechanisation of the World Picture: Pythagoras to Newton*, Princeton University Press, Princeton, NJ.

Doz, Y. and Thanheiser, H. (1993), "Regaining competitiveness: a process of organizational renewal", in Hendry, J., Johnson, G. and Newton, J. (Eds), *Strategic Thinking: Leadership and the Management of Change*, Wiley, Chichester.

Drucker, P. (1985), *Management*, Harper, New York, NY.

Feigenbaum, A.V. (1961), *Total Quality Control*, McGraw-Hill, New York, NY.

Fromm, E. (1990), *The Sane Society*, Henry Holt, New York, NY.

Ghoshal, S. and Bartlett, C.A. (1997), *The Individualized Corporation*, HarperBusiness, New York, NY.

Gleick, J. (1988), *Chaos. Making a New Science*, Cardinal, London.

Gordon, G.C. and DiTomaso, N. (1992), "Predicting corporate performance from organizational culture", *Journal of Management Studies*, Vol. 29 No. 6, pp. 783-98.

Grant, R.M., Shani, R. and Krishnan, R. (1994), "TQM's challenge to management theory and practice", *Sloan Management Review*, Winter, pp. 25-35.

Guimaraes, T. (1996), "TQM's impact on employee attitudes", *The TQM Magazine*, Vol. 8 No. 1, pp. 20-5.

Hammer, M. and Champy, J. (1993), *Reengineering the Corporation*, Nicholas Brealey Publishing, London.

Handy, C. (1995), *Gods of Management*, Arrow Books, London.

Hassard, J. (1993), *Sociology and Organization Theory*, Cambridge University Press, Cambridge.

Hofstede, G. (1991), *Cultures and Organizations*, McGraw-Hill, London.

Hoogervorst, J.A.P. (1998), *Quality and Customer Oriented Behavior: Towards a Coherent Approach for Improvement*, Eburon, Delft.

Hosking, D.M. and Morley, I.E. (1991), *A Social Psychology of Organizing: People, Processes and Contexts*, Harvester Wheatsheaf, Hemel Hempstead.

Juran, J.M. (1991), "Strategies for world-class quality", *Quality Progress*, March, pp. 81-5.

Katz, D. and Kahn, R.L. (1978), *The Social Psychology of Organizations*, Wiley, New York, NY.

Kaufman, R.S. (1992), "Why operations improvement programs fail: four managerial contradictions", *Sloan Management Review*, Vol. 34 No. 1, pp. 83-93.

Kerr, S. (1989), "On the folly of rewarding A, while hoping for B", in Leavitt, H.J., Pondy, L.R. and Boje, D.M. (Eds), *Readings in Managerial Psychology*, University of Chicago Press, Chicago, IL.

Koopman, P.L. (1991), "Between control and commitment", *Leadership & Organization Development Journal*, Vol. 12 No. 5, pp. 3-7.

Kotter, J.P. (1988), *The Leadership Factor*, The Free Press, New York, NY.

Kotter, J.P. (1995), "Leading change: why transformation efforts fail", *Harvard Business Review*, Vol. 71 No. 2, pp. 59-67.

Kotter, J.P. and Heskett, J.L. (1992), *Organizational Culture and Performance*, Free Press, New York, NY.

Lawrence, P. and Lorsch, J. (1969), *Organization and Environment. Managing Differentiation and Integration*, Richard D. Irwin Inc., Homewood, IL.

Leonard-Barton, D. (1992), "The factory as a learning laboratory", *Sloan Management Review*, Vol. 34 No. 1, pp. 23-38.

Likert, R. (1965), *New Patterns of Management*, McGraw-Hill, New York, NY.

Lund, K. and Thomsen, C. (1994), "How to sustain the total quality management process after the first 12 months", *The TQM Magazine*, Vol. 6 No. 5, pp. 47-9.

McGregor, D.M. (1960), *The Human Side of Enterprise*, McGraw-Hill, New York, NY.

Meyerson, D. and Martin, J. (1994), "Cultural change: an integration of three different views", in Tsoukas, H. (Ed.), *New Thinking in Organizational Behaviour*, Butterworth-Heinemann, Oxford.

Miles, R.E. and Snow, C.C. (1984), "Fit, failure and the Hall of Fame", *California Management Review*, Vol. 26 No. 3, pp. 10-28.

Mintzberg, H. (1989), *Mintzberg on Management*, Free Press, New York, NY.

Morgan, G. (1986), *Images of Organizations*, Sage Publications, Beverly Hills, CA.

Numerof, R. and Abrams, M.N. (1994), "How to prevent the coming failure of quality", *Quality Progress*, Vol. 27 No. 12, pp. 93-7.

Oakland, J.S. and Porter, L.J. (1994), *Cases in Total Quality Management*, Butterworth-Heinemann, Oxford.

O'Reilly, C. (1989), "Corporations, culture and commitment: motivation and social control in organizations", *California Management Review*, Vol. 31 No. 4, pp. 9-25.

Pearson, C.A.L. (1992), "Autonomous workgroups: an evaluation at an industrial site", *Human Relations*, Vol. 45 No. 9, pp. 905-36.

Peters, T. (1989), *Thriving on Chaos*, Pan Books, London.

Peters, T.J. and Waterman, R.H. (1982), *In Search of Excellence*, Warner, New York, NY.

Pettigrew, A.M. (1998), "Success and failure in corporate transformation initiatives", in Galliers, R.D. and Beats, W.R. (Eds), *Information Technology and Organizational Transformation*, Wiley, Chichester.

Pfeffer, J. (1994), *Competitive Advantage through People*, Harvard Business School Press, Boston, MA.

Powell, T.C. (1995), "Total quality management as competitive advantage: a review and empirical study", *Strategic Management Journal*, Vol. 16 No. 1, pp. 15-37.

Prahalad, C.K. (1995), "How HR can help to win the future", *People Management*, Vol. 1 No. 1, pp. 34-6.

Prahalad, C.K. and Hamel, G. (1990), "The core competence of the corporation", *Harvard Business Review*, May/June, pp. 79-91.

Pugh, D.S. (1990), *Organization Theory*, Penguin Books, London.

Rousseau, D.M. (1990), "Assessing organizational culture: a case for multiple methods", in Schneider, B. (Ed.), *Organizational Climate and Culture*, Jossey-Bass, San Francisco, CA.

Schein, E.H. (1985), *Organizational Culture and Leadership*, Jossey-Bass, San Francisco, CA.

Scott-Morgan, P. (1994), *The Unwritten Rules of the Game*, McGraw-Hill, New York, NY.

Scott Morton, M.S. (1991), *The Corporation of the 1990s*, Oxford University Press, New York, NY.

Senge, P. (1990), *The Fifth Discipline*, Doubleday, New York, NY.

Stacey, R. (1992), *Managing the Unknowable*, Jossey-Bass, San Francisco, CA.

Tichy, N.M. and Ulrich, D.O. (1989), "The leadership challenge – a call for the transformational leader", in Ott, J.S. (Ed.), *Classical Readings in Organizational Behavior*, Brooks/Cole Publishing Company, Belmont, CA.

Trice, H.M. and Beyer, J.M. (1984), "Studying organizational cultures through rites and ceremonies", *Academy of Management Review*, Vol. 9 No. 4, pp. 633-69.

Tsoukas, H. (1994), "Refining common sense: types of knowledge in management studies", *Journal of Management Studies*, Vol. 31 No. 6, pp. 761-80.

Vinten, G. (1992), "Thriving on chaos: the route to management survival", *Management Decision*, Vol. 30 No. 8, pp. 22-8.

Voss, C. and Blackmon, K. (1995), "TQM and performance – data from Europe EFQM", The 1995 Learning Edge Conference, Vienna, 18-19 May.

Weick, K.E. (1994), "Organizational culture as a source of high reliability", in Tsoukas, H. (Ed.), *New Thinking in Organizational Behaviour*, Butterworth-Heinemann, Oxford.

Wheatley, M.J. (1994), *Leadership and the New Science*, Berrett-Koehler Publishers, San Francisco, CA.

Whiteley, R.C. (1992), *The Customer Driven Company*, Addison-Wesley, Reading, MA.

Yukl, G. (2002), *Leadership in Organizations*, Prentice-Hall, Upper Saddle River, NJ.

Zairi, M. (1994), *Measuring Performance for Business Results*, Chapman & Hall, London.

Zaleznik, A. (1992), "Managers and leaders: are they different?", *Harvard Business Review*, March/April, pp. 126-35.